USS John C. Stennis launching NATO Sea Sparrow missile.

U.S. Navy (Prather)

Transforming NATO Defense Capabilities

By HAROLD W. GEHMAN, JR.

The transatlantic relationship created by the Washington Treaty of 1949 has been uniquely enduring and successful in warding off common dangers. However, this achievement has resulted in a new era that cannot be characterized in bipolar terms. Ethnic conflict, political instability, and territorial disputes are mounting around the NATO periphery. We face a proliferation of weapons of mass destruction, increases in the lethality of terrorism, non-state sponsored adventurism, and other asymmetric challenges. These dangers have forced us to reconsider the definitions of peace, territorial integrity, and security—concepts that are the *raison d'être* of the Alliance.

NATO accepts the fact that it must change to remain as relevant as it has been for 50 years. Politically, programs such as the Founding Act with Russia, a distinct relationship with Ukraine, the Mediterranean Dialogue, and the

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Partnership for Peace program evidence this development and extend transparency to the east and south. The most discernible new mission is the assumption of peacekeeping responsibilities as leader of Implementation and Stabilization Force. Bosnia has been a success in both humanitarian and geopolitical terms and demonstrated that the transformation of the Alliance from a fixed defense posture to flexible mobile operations is well underway. NATO force levels have been reduced by 35 percent and shifted from high-readiness, forward-deployed heavy units to a mix of lower-readiness and core rapid reaction forces. Significant progress also is being made in doctrine, organization, and technology to ensure that NATO forces can serve as an effective crisis management tool whenever the collective interest of the allies is threatened.

The Strategic Concept approved in 1991 offered a broad definition of security that set the stage for operations in the Balkans. NATO heads of state will approve a new Strategic Concept at the Washington Summit that is likely to continue that trend toward operations around the periphery of its territory. The next century will present a global environment of rapidly changing technology and diverse asymmetrical threats. Members of the Alliance are struggling to make the transition to the information age while facing competing demands for resources. Such challenges will test the ability of its defense forces to function as a coherent and compatible team capable of undertaking joint missions and operations. NATO thus needs a more systematic way of preparing for the rapid development of defense capabilities required by the new Strategic Concept. Although the current force planning process has been effective, it is a deficiency-based planning system unsuited for the larger and faster changes that are bearing down.

TOW gunner searching horizon during Urban Warrior.

2d Marine Division (Donald Storms)

ACLANT acts as the conduit for the flow of planning, concepts, and technology between North America and Europe

Transatlantic Link

Throughout NATO history, the transatlantic link has referred to the political, economic, and military ties between North America and Europe. As one of two major NATO commands, Allied Command Atlantic (ACLANT) is the western pillar of that relationship. It was founded to ensure that military forces and sustainment could flow from North America to defend Europe. Traditional common defense operations are integral to the Alliance and remain the primary ACLANT mission; however, the changing security environment provides an opportunity to use the maritime expertise of the command in new ways.

ACLANT is currently in the forefront of planning and conducting sea-based combined and joint operations designed to employ the full spectrum of military capabilities from different military services—capabilities that will provide the means of dealing with crises on the periphery of NATO. The unfolding of initiatives such as the combined joint task force, Partnership for Peace program, European Security and Defense Identity (ESDI) within NATO, European Multinational Maritime Force, and counterproliferation are vital to the Alliance and enjoy a high priority. Interoperability problems and learning to exploit technology are also critical issues. The character of the ACLANT staff has changed significantly to accommodate them. It is genuinely joint with representatives of every service who capitalize on the core competencies of the Armed Forces as a whole.

In many ways these efforts represent the new meaning of the transatlantic link. ACLANT acts as the conduit for the flow of planning, concepts, and technology between North America and Europe. We view ourselves as a bridge to the future, leading in innovation as we adapt to changes in the strategic and operational environment on behalf of the

Landing in North Carolina, Unified Spirit '98.

2nd Marine Division (Timothy A. Pope)

British troops clearing target during JTFEX 99–1.

55th Signal Company (Gerald T. James, Jr.)

Alliance. These efforts are enhanced by the synergy between ACLANT and U.S. Atlantic Command (ACOM).

The ACOM Connection

As commander in chief of U.S. Atlantic Command I am responsible for military interests of the Nation in the geographic area of the Atlantic Ocean, from the North to South Pole, excluding the Caribbean and North Sea. While this is a vast area of responsibility (AOR), the only sizeable populations are found in Iceland and the Azores—and they are not experiencing any major crises. This enables me to focus on assigned functional responsibilities.

Our charges include command of more than 1.2 million soldiers, sailors, marines, and airmen within the United States—or roughly 80 percent of general purpose combat forces. Because my AOR lacks hot spots, I provide these forces to the other geographic commanders in chief. More

F–15 preparing for take off from RAF Lakenheath.

48th Communications Squadron (Joseph Lozada)

AH–1 providing close air support, Cooperative Osprey '98.

982d Signal Company, (Thomas W. Ammons)

importantly, ACOM is responsible for joint training and integration, which are very much focused on future warfighting challenges. In fact, we like to say that the future is in our AOR. All of these tasks mesh well with my NATO responsibilities and are key to bringing about the healthy changes which I believe are needed in the U.S. military and the Alliance as a whole.

Given these varied responsibilities, the Secretary of Defense asked me to host a conference last autumn entitled "Transforming NATO's Defense Capabilities" to examine current efforts and future plans to bring about change. In addition to presentations on transforming national militaries, most participants accepted the call to transform allied capabilities to deal with challenges in the next century. There was agreement that long-term force planning, which has served NATO well, will not enable us to get where we must go. I am pleased because this means we can start working on solutions. It will allow us to take the fear out of the planning process in the future. There was also a consensus on one solution—the requirement for a common operational vision for our defense forces. It could act as an umbrella concept for a more methodical process that allows the Alliance to systematically work on change without necessarily predicting the future.

Joint Experimentation

My role at the Norfolk conference, beyond playing host, was to describe one way in which we are dealing with the transformation of the U.S. military. In October 1998, ACOM became the DOD executive agent for a process known as joint experimentation. The decision by the Secretary of Defense to assign this vital role to us represented the culmination of dedicated efforts by both the Pentagon and Congress.

There are two primary and enduring reasons to pursue joint experimentation that equally apply to the United States and NATO: to prevent surprises by potential adversaries and to maintain our military advantage. Experimentation will help in the exploration of innovative approaches and leap-ahead capabilities and in the exploitation of opportunities to transform the U.S. military into a 21st century force. The bottom line is keeping all our options open.

Before experimenting, however, we are spending considerable time and effort to determine what constitutes an experiment and how the process of selecting topics, developing objectives, and analyzing results works. Joint experimentation is a long-term enterprise, not a series of isolated events. It is not a demonstration or exercise, although with careful planning an experiment can be conducted within an exercise. Experimentation must go beyond studies. We must experiment to discover and learn, not just demonstrate or verify. This is an iterative process for developing and assessing concept-based hypotheses to identify and recommend the best value-added solutions.

We are focused on integrated capabilities and warfighting concepts on the operational level, with forays onto the tactical and strategic levels. We will support, integrate, and leverage programs in conjunction with CINCs, services, and agencies to synchronize efforts and provide a joint context for experimentation. This plan involves performing simultaneous near-term, mid-term, and long-term experiments in the areas of doctrine, organization, and technology.

Near-term experiments seek to correct deficiencies in current forces and doctrine by rapid integration of off-the-shelf technology and changes in current operational concepts. Our methods include the leveraging of scheduled demonstrations and tests as well as conducting experiments. Such

Phases of Joint Experimentation

Near Term	maintain current dominance	enhance capabilities of existing forces by quickly identifying *innovative and current operational concepts*, evaluating their potential, and applying *off-the-shelf solutions*
Mid Term	actualize *Joint Vision 2010*	achieve and maintain full spectrum dominance with the 2010 force through joint experimentation with *evolutionary concepts*
Long Term	dominate the revolution in military affairs (RMA)	through bold thinking, shape the joint-force-after-next by developing and exploring *revolutionary concepts*

efforts are focused one to six years out and impact on the current future year defense plan. Mid-term experiments seek to build joint capabilities with emerging technologies and evolutionary operational concepts. The bulk of such efforts involve experiments and wargaming. The common operational vision concepts based on *Joint Vision 2010* fall into the mid-term category. Long-term experimentation explores revolutionary ideas and future technologies. Although experiments will be used when possible, wargaming, workshops, and seminars will be the most common methods.

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Joint experimentation is an aggressive, innovative process to propel the Armed Forces into the future. It is also timely—occurring as a more methodical and systematic approach is required to transform military institutions to ensure their relevancy. Joint experimentation is key to changing doctrine, organization, and technology to meet this challenge of transformation.

Concept Development

NATO recognizes the requirement for concept development and experimentation (CDE) as integral to force planning. CDE will help the Alliance and individual member nations to transform defense forces to meet emerging conditions. It will support implementation of the new Strategic Concept and the operational vision for NATO forces and help member nations harness emerging technology via innovative operational concepts. CDE will examine both doctrine and organization as well as technology and, like U.S. joint experimentation, focus simultaneously on near-term, mid-term, and long-term concepts. It will save money by identifying the most promising concepts and helping nations avoid locking in on expensive technical solutions too early.

In the process of implementing a CDE program within NATO we are proceeding along two complementary tracks. The first involves leveraging nation-centered experimentation efforts which involve battlefield operational tasks such as the rapid insertion of reaction forces to stabilize crises, defense against hostile aircraft, or the detection and destruction of theater ballistic missiles. Using this approach, coalitions of interested members operating under a lead nation would collaboratively develop and experiment with new operational concepts developed to carry out critical tasks.

This process begins by identifying critical task needs across the range of potential military operations. Tasks could be selected from various sources which include: NATO-validated long-term requirement force goals; NATO-sponsored requirement identification efforts (such as land, maritime, and aerospace long-range studies); member nations; Supreme Allied Commander Europe or Supreme Allied Commander Atlantic (SACLANT); research and development committees; and the private sector. To gain the maximum benefit for the resources expended, tasks will be chosen when significant shortfalls exist or the potential for major improvement is clear. Initially CDE is focused on reaction forces, but it could be extended to all defense forces. ACLANT, in association with Allied Command Europe, will help coordinate and support the development of concepts from battlefield operational tasks and facilitate the conduct and evaluation of experiments.

The second CDE track involves experiments on functional areas such as command, control, and communication (C^3), intelligence, logistics, and mobility. Concepts for the experiments could be selected, refined, and developed by a major command working group from the same sources as national level CDE. ACLANT would create a campaign plan to provide a high-level description of the process and an assessment of the utility of candidate concepts for experimentation. It would then present the plan to the North Atlantic Council via the NATO Military Committee for review and concurrence. Once approved, the command would develop a plan for each concept to describe the schedule, participants, and desired capabilities in sufficient detail that operational commanders or agencies such as the NATO C^3 Agency or SACLANT Undersea Research Center can carry out the trial. This would contain a hypothesis that both defines objectives and describes the collection and analysis of data. ACLANT will examine the results reached on a given concept as well as information from other experiments to draw conclusions on its utility and value for combined operations. After a thorough review, these conclusions will become recommended actions for implementation.

It is not clear what exact shape transformation will take. Yet we expect the challenges of the next century to be both quantitatively and qualitatively different from those of the Cold War and to require changes in individual and collective institutions, military strategies, and defense postures. The institutional challenge can scarcely be exaggerated. Usually a sea change in the military occurs only after a new, ascendant threat appears on the horizon or major crises begin to unfold. Fortunately, the end of the Cold War leaves us without the former threat for now.

This is an era of dynamic change, constrained resources, and rapid technological advances. It requires bold, innovative thinking and an ability to shape and manage change to preserve the leadership role of the Alliance. Technology must be an ally. To succeed, we must look into the future, explore innovative operational concepts, develop the right technology, commit assets wisely, and prepare the joint and combined community for tomorrow. A program of concept development and experimentation is indispensible to systematic change. By seizing this opportunity, NATO will remain the security organization of choice for the next century. **JFQ**